PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
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BOSTON, MA 02110

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing *(day/month/year)*	18 APR 2003
Applicant's or agent's file reference 09765-015WO1	REPLY DUE within 2 months/days from the above date of mailing

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US01/41363	13 July 2001 (13.07.2001)	13 July 2000 (13.07.2000)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): G06F 17/60 and US Cl.: 705/5

Applicant

ITA SOFTWARE, INC.

1. This written opinion is the first (first, etc,) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

I	☒	Basis of the opinion
II	☐	Priority
III	☐	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	☐	Lack of unity of invention
V	☒	Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	☐	Certain documents cited
VII	☐	Certain defects in the international application
VIII	☐	Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 13 November 2002 (13.11.2002).

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230	Authorized officer Tariq Hafiz Telephone No. 703-305-3900

Form PCT/IPEA/408 (cover sheet)(July 1998)

WRITTEN OPINION

International application No.
PCT/US01/41363

I. Basis of the opinion

1. With regard to the **elements** of the international application:*

☒ the international application as originally filed

☒ the description:
pages 1-18, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

☒ the claims:
pages 19-22, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

☒ the drawings:
pages 1-10, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

☐ contained in the international application in printed form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages NONE _____

☐ the claims, Nos. NONE _____

☐ the drawings, sheets/~~fig~~ NONE _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	2,3,7,11-16,18-20	YES
	Claims	1,4-10,17	NO
Inventive Step (IS)	Claims	NONE	YES
	Claims	1-20	NO
Industrial Applicability (IA)	Claims	1-16	YES
	Claims	17-20	NO

2. CITATIONS AND EXPLANATIONS
Please See Continuation Sheet

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:
The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 2. Citations and Explanations:

Claims 1,4-10 and 17 lack novelty under PCT Article 33(2) as being anticipated by Lynch et al (US 6,018,715).

As per claims 1, 17, Lynch et al 715' discloses:

A competitive, availability prediction system for predicting relative, competitive availability of seating on an airline flight.../A method of predicting relative, competitive availability of seating...(Abstract, lines 7-20):

An availability predictor that predicts seating availability.../predicting seating availability...(Abstract, lines 1-8, lines 11-20, Col. 6, lines 7-10);

An availability system that produces an actual availability response.../providing an actual availability response...(Col 7, lines 17-29, where the agency provides the actual availability and system **10** produces the response);

Decision logic that compares the predicted answer from the availability predictor and the potential answer from the availability system to establish a decision with respect to actual availability.../comparing the predicted answer...(Col. 8, lines 40-41 and 47-49, where the competitor includes at least a travel agency).

As per claim 4 Lynch et al 715' discloses:

Wherein the decision logic determines whether the prediction from the availability predictor indicates that a competitor is in a more favorable or less favorable competitive position...(Col. 3, lines 21-28, Col. 7, lines 42-50).

As per claim 5 Lynch et al 715' discloses:

Wherein the decision as to an actual availability answer is based on the message from the decision logic...(Col. Col. 6, lines 7-28).

As per claim 6 Lynch et al 715' discloses:

Wherein the message from the decision logic can have a plurality of states...(Col. 6, lines 10-25).

As per claim 7 Lynch et al 715' discloses:

Wherein one of the states includes a neutral state that is does not tend to modify the potential answer received...Col. 6, lines 15-16).

As per claim 8 Lynch et al 715' discloses:

Wherein one of states biases a potential answer towards answering that seat is available...(Col. 6, line 14).

As per claim 9 Lynch et al 715' discloses:

Wherein one of states biases a potential answer towards answering that seat is not available...(Col. 6, lines 14-15).

As per claim 10 Lynch et al 715' discloses:

Wherein state depends upon the relative competitive position of the competitor represented by the availability predictor...(Col. 6, lines 7-14).

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Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Claims 2, 3, 18 and 19 lack an inventive step under PCT Article 33(3) as being obvious over Lynch et al (US 6,018,715) in view of Lynch et al (US 5,839,114).

As per claims 2, 3, 18, 19, Lynch et al '715 fails to disclose the following, however Lynch et al '114 discloses:

Wherein the decision of the decision logic is a bias that determines whether the potential answer should be modified.../Modifying logic that is responsive to the availability response from the availability system and from the bias from the decision logic to modify the actual availability answer in accordance with the bias.../wherein comparing produces a decision that is a bias that determines whether the potential answer should be modified.../modifying the actual availability...(Col. 7, line 66-Col. 8, line 26).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine whether the potential answer should be modified based upon the relative competitive position of the competitor represented by the availability predictor and to actually modify the actual availability answer with the motivation of providing a fair and balanced travel arrangement through updating and making changes to the travel plan.

Claims 11-16 and 20 lack an inventive step under PCT Article 33(3) as being obvious over Lynch et al (US 6,018,715).

As per claims 11, 20, Lynch et al '715 fails to disclose the following:

Wherein the decision logic determines whether the competitor's available booking codes are at a lower price.../determining whether the competitor's available booking codes are at a lower price...

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine whether the competitor's available booking codes are at a lower price than those which the availability system indicates the user of the system can offer with the motivation of accessing the travel arrangement that would be cheapest for the customer.

As per claims 12, 13, Lynch et al '715 fails to disclose the following:

Wherein if the competitor's available booking codes are not at a lower price, then the system can return a bias towards making the seat unavailable.../wherein if the competitor's available booking codes are not at a lower price, then the system can test whether the original query was for a low cost fare and return a bias towards making the seat not available...

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to return a bias towards making a seat unavailable if the booking codes are not at a lower price with the motivation of not going outside of a price range and subjecting the customer to unnecessary costs.

As per claims 14, 15, Lynch et al '715 fails to disclose the following:

Wherein if the competitor's available booking codes are at a lower price than those being offered by the user of the system, the system returns a bias towards making the seat available.../wherein if the competitor's available booking codes are at a lower price than those being offered by the user of the system, the system determines whether the query was for a high cost fare, and returns a bias towards making the seat available if for a high cost fare...

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to make seating available if booking codes are at a lower price with the motivation of providing the customer with the best rates for a travel arrangement.

As per claim 16, Lynch et al '715 discloses:

Wherein the messages that are returned change the availability message from the availability system...(Col. 6, lines 25-34).

Claims 17-20 lack industrial applicability as defined by PCT Article 33(4) because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim , the recite process must somehow apply, involve, use, or advance the technological arts.

In the present case, independent claim 17 is directed towards predicting relative, competitive availability of seating on an airline flight. Claim 17 recites the steps of "predicting seating availability on a competitive flight", "providing an actual availability response for a flight" and "comparing the predicted answer from the availability predictor and the potential answer from the availability system to establish a decision with respect to actual availability". These steps represent mere ideas in the abstract and therefore are found to be non-statutory subject matter. The claims that depend on independent claim 17 are therefore found to be non-statutory as well.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In this case, claim 17 produces a useful, concrete, and tangible result by disclosing the "comparing the predicted answer from the availability predictor and the potential answer from the availability system to establish a decision with respect to actual availability" step. However, since claims 17-20 are not within the technological arts, these claims are still non-statutory.

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---------- NEW CITATIONS ----------